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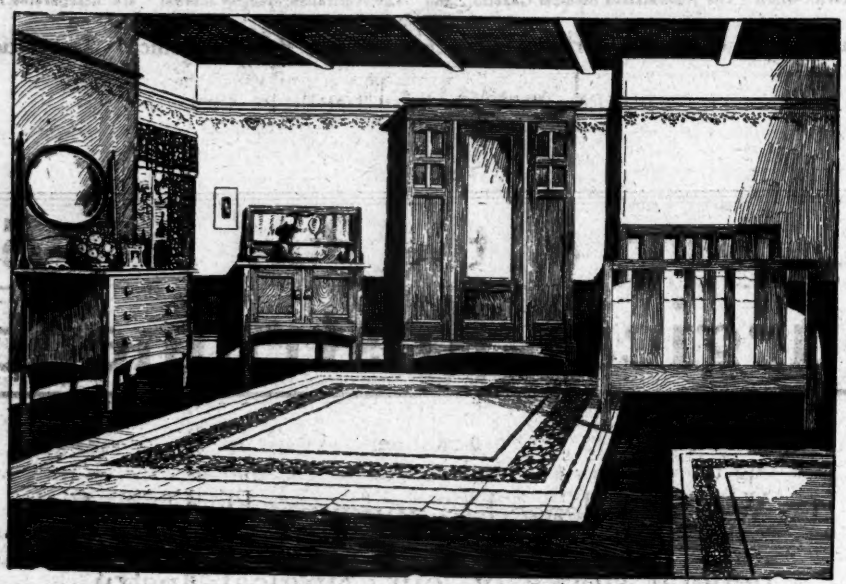

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THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—7TH YEAR. SYDNEY: SATURDAY, OCTOBER 23, 1920. No. 17.

DEAFNESS IN CHILDREN.[1]

By **George E. Rennie, M.D., F.R.C.P. (Lond.),**

Senior Physician and Lecturer in Clinical Medicine, Royal Prince Alfred Hospital, Sydney.

I have analysed the cases of deafness which have been under care in this Institution[2] for the past eight or nine years, with a view to ascertaining as far as possible the cause of the deafness and the probable condition of the auditory and speech mechanisms in the brain. Exact information is not always forthcoming and the cause assigned by the parents or friends for the deafness has always to be taken with reserve.

First, one hundred and forty-four deaf boys have been in the institution in the period mentioned. These may be classified as follows:

1. Cases of congenital deafness, with no family history of deafness	78
2. Cases of congenital deafness, with history of deafness in brothers or sisters	13
3. Cases of congenital deafness, with history of deafness in parents or parents' relatives	9
4. Cases of congenital deafness in which the parents were related	6
5. Cases of acquired deafness	28
6. Cases of doubtful causation	5
7. Cases of mental defect, with partial hearing	5
Total	144

It will be noticed that out of these 144 cases no less than 106 are considered to be congenitally deaf and only 28 have acquired their deafness as a result of some disease. But if we examine the causes assigned for the deafness in these 28 cases, we find some which most probably have no connexion with it. For example, in three cases a fall in infancy is said to have caused the deafness, but we know how ready a mother is to think of a fall from a nurse's arms or out of a perambulator as a cause for all sorts of ailments in the child, so that we can at once put aside "a fall" as a cause of the deafness. In six cases a cold or bronchitis or pneumonia is said to have been followed by deafness. This is most probably correct, for it is not uncommon for a catarrh to extend along the Eustachian tubes to the internal ear and set up a destructive inflammation there. Ten cases are said to have followed on meningitis, one after scarlet fever, two after inflammation and discharge from the ears, one after convulsions following on burns, two after gastro-enteritis, one after accident at birth and one after some doubtful illness at two years of age and one after removal of nasal growth at 15 months. All of these latter may reasonably be considered as a cause of the deafness. But it is extremely probable that if we were able to get an accurate history of the early life of the 106 cases which are said to be of congenital origin, we should find in a fairly large number some factor which would account for destruction of the ear in infancy.

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on August 13, 1920.

[2] New South Wales Institution for the Deaf and the Blind.

Second, there were 94 deaf girls under care during the same period:

1. Cases of congenital deafness, with no family history of deafness	35
2. Cases of congenital deafness, with history of deafness in brothers or sisters	13
3. Cases of congenital deafness, with history of deafness in parents or parents' relatives	9
4. Cases of congenital deafness in which the parents were related	4
5. Cases of acquired deafness	22
6. Cases of doubtful causation	6
7. Cases of mental deficiency, with partial hearing	5
Total	94

Among the causes assigned for the deafness we find congenital syphilis in three cases, meningitis in five cases, cold and bronchitis in three, measles in two, scarlet fever in one, teething in one, enteric fever in one, gastritis in one, after vaccination in one, after operation for tonsils and adenoids in one, whooping cough in two and one after some doubtful illness at nine years of age.

If we note the causes assigned in both groups of cases we find that meningitis heads the list, cold and bronchitis comes next, while scarlet fever and measles are assigned in only four cases. Congenital syphilis, which is so commonly regarded as a potent cause of deafness in children, is not assigned as a cause of deafness in any of the boys and in only three of the girls.

It may be interesting now to compare these figures with some recorded by Bergh, a Swedish observer. He analysed the cases of deaf mutism in one Swedish province. The total number of cases was 383, about 8 in every 10,000 of the population. Males outnumbered the females, though the proportion of females to males in the general population was as 106 to 100. In 28% the deafness was congenital and in 63% it was acquired, in 9% the cause was doubtful. Direct and indirect inheritance were of minor importance. Consanguineous marriages, like inheritance, played a small but assured rôle. In general, attempts to connect well-known factors in the production of disease and malformation with deaf mutism seem to have broken down. The conclusion is that the deaf mute is a degenerate *sui generis* and also a chance victim of infections in which there may be, of course, a predisposition. The number would diminish if we could banish small-pox, typhoid fever, cerebro-spinal meningitis and other infections and could treat promptly and continuously all middle-ear disease in the young child.

It is interesting in comparing these figures to note the relatively much smaller proportion of congenitally deaf to those with acquired deafness, as compared with the figures I have given you of the cases in this Institution.

In the cases of congenital deafness the defect must be primarily in the receptive mechanism of the internal ear, for any primary defect in the auditory

centre in the cortex would lead not to ordinary deafness, but to word deafness, that is, the sounds would be heard but the meaning of those sounds would not be appreciated. As a result of study of the normal process of speech and thought, and from a study of the pathological conditions found in cases of speech defects, we recognize the existence of certain areas of the brain which are conveniently spoken of as centres and which are closely related to one another. Thus we recognize an auditory centre in the temporal lobe, a visual centre in the supra-angular convolution, a glosso-kinæsthetic or speech centre in the lower portion of the ascending frontal convolution and a cheiro-kinæsthetic or writing centre in the second frontal convolution. The auditory and visual centres are probably not only concerned with the reception of impressions from the ear and eye, but are also storehouses of past impressions which can be recalled to consciousness in the process of silent thought. The glosso- and cheiro-kinæsthetic centres are probably motor centres which control and co-ordinate the muscles which are concerned in the production of articulate speech and in writing.

Normally these centres appear to be closely united in couples, thus the auditory centre appears to be closely connected with the glosso-kinæsthetic centre and the visual centre with the cheiro-kinæsthetic centre. Thus impressions are received from the ear by the auditory centre and are thence transmitted to the speech centre and words are then spoken. But if the ear is defective and the auditory centre is functionless, it is clear that no impressions can reach the speech centre from the auditory centre and if speech is possible, then the speech centre must be stimulated by impressions received along some other path. The ordinary coupling of the auditory and the glosso-kinæsthetic centre must give place to some other arrangement of the commisural fibres. The visual centre now becomes the more active and impressions received by it, that is, visual impressions of written or printed words or visual impressions of muscular movements concerned in the process of articulate speech become the predominant stimuli for the speech centre.

During the process of silent thought words are revived and used as symbols by means of which the process is carried on in the thinker's mind. These are revived either as auditory impressions, or sounds of words as we hear them read or hear them used in ordinary conversation, or they may be revived as visual images, as the appearances of words whether written or printed, or, again, according to some authorities, they may be revived as feelings or sensations produced by the muscular movements in the articulation of words. In normal persons the former is considered to be the most common process; in other words, "auditives" are more common than "visuals." But it is quite clear that in cases of congenital deafness there can be no revival of auditory impressions, consequently silent thought must be carried on by visual symbols or by kinæsthetic memories. It is quite probable that though the latter method may not be very common or effective in normal persons, yet in the congenitally deaf it may become of great importance and assistance in stimulating the speech centre.

The value of the oral method of teaching the deaf lies in the use that is made of both the visual impressions and the kinæsthetic sensations and the speech centre is thereby stimulated in both these ways. If the deaf child is taught only by the manual alphabet, he has to carry on thought by means of spelt out words and his process of silent thought is much slower and more laboured.

THE CAUSES OF BLINDNESS IN CHILDREN IN NEW SOUTH WALES.[1]

By J. C. Halliday, M.B., Ch.M.,

Honorary Ophthalmic Surgeon, Royal Prince Alfred Hospital, Sydney; Honorary Ophthalmic Surgeon, Royal Alexandra Hospital for Children; Honorary Ophthlamic Surgeon, New South Wales Institution for the Deaf and Blind.

When in 1911 Mr. Earlam took charge of the New South Wales Institution for the Deaf and Dumb and Blind, he very kindly, as well as wisely, afforded me the opportunity of examining the eyes of all the children then in residence and every year since then those of the new children admitted.

In all 71 have been examined, 46 boys and 25 girls, and an attempt has been made, often with imperfect data, to assign in each case the cause of blindness. The result is shown in the following table:—

	Cases.
Ophthalmia neonatorum	17
Congenital defects (including cataract)	16
Optic atrophy	15
Syphilis	6
Sympathetic ophthalmitis	5
Trachoma	4
Glioma	3
Metastasis in fevers	3
Buphthalmos	1
Burns	1
Total	71

I am aware that the numbers are too small to form the basis of accurate percentages. Still it is worth noting that gonorrhœal infection accounts for 24% of the cases and gonorrhœa and syphilis together for 32%. The syphilitic cases are very probably under estimated, but as they stand the numbers confirm the well-known tale of the ravages of venereal disease. The 15 cases of optic atrophy include four said to be post meningeal, one from cerebral tumour and for the others no cause could be assigned. I would like to call your attention to the five tragic instances of sympathetic blindness. There is a feeling among ophthalmologists at the present time that sympathetic ophthalmitis is a very rare disease, so rare some would say that it might be regarded as a bugbear of the over-anxious. The war statistics give support to this view, but they deal exclusively with adults. I think I have seen only about four cases of sympathetic ophthalmitis and they were all in children. Are we not then justified in concluding

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on August 13, 1920.

that sympathetic ophthalmitis is essentially a children's disease?

A word about the total number of children seen. By the courtesy of Mr. Waites, of the Statistician's Department, I saw that the total number of blind in New South Wales recorded in the census of 1911 is 1,011 and that the number between the ages of 0 to 14 years is 50. Assuming a constant ratio among those born since 1911, Mr. Waites is of opinion that the total of 71 probably accounts for nearly all the blind children in the State during the past ten years. This to me rather surprising result, gives a splendid testimony to the valuable work for the State accomplished at this institution and to the good name it has throughout the country.

I have endeavoured to get some estimate of the number of cases of *ophthalmia neonatorum* of gonorrhœal origin occurring in Sydney each year, but in the absence of compulsory notification and confirmation of the diagnosis by bacteriological examination, the problem is difficult. At the Royal Prince Alfred Hospital 12 cases were treated in 1918 and 5 in 1919. At the Sydney Hospital and the Coast Hospital no cases were reported. Dr. Weihen, Honorary Ophthalmic Surgeon to the Royal Hospital for Women, Paddington, and Dr. Shepherd, Honorary Ophthalmic Surgeon to the Women's Hospital, Crown Street, both tell me that they are called in about four or five times during the year to see severe cases and referred me to the hospital authorities for definite figures. Dr. Mansfield, for the Royal Hospital for Women, reports 100 cases in the last two years out of 2,500 births. No distinction is made between gonorrhœal and non-gonorrhœal cases. Prophylaxis is adopted as a routine in all births.

Dr. Ludowici reports for the Women's Hospital the following figures. In 1918, out of 674 births: *Ophthalmia neonatorum* (gonorrhœal) 13 cases, simple conjunctivitis (non specific) 9 cases. In 1919, out of 790 births: *Ophthalmia neonatorum* (gonorrhœal) 11 cases, simple conjunctivitis (non-specific) 2 cases. Prophylaxis is employed in all births.

CARE OF BLIND AND DEAF CHILDREN.[1]

By **Selwyn Harrison, M.B., Ch.M. (Syd.),**
Honorary Physician, Renwick Hospital and the Women's Hospital, Sydney.

An institution for the care of blind and deaf children is no longer a sort of foundling asylum, where unfortunate misfits are recipients of misdirected charity, but a modern school, conducted on sound educational lines. The child deprived of a special sense requires to be so coached and trained that, in spite of his handicap, he may pull his weight in the competition of life. The haphazard ways of ordinary schooling may be good enough for the normal boy and girl, but the physiologically defective requires something more than this.

The first object is to make the child feel that he is not an outcast, but a healthy little animal, like other children, who should play and laugh and enjoy life. Self-reliance and self-respect are established and gradually built up, until he forgets to be sensitive and tends to become unconscious of defectiveness. It must be understood that blindness and deafness are in a large percentage of cases accidental or acquired. A perfectly healthy baby that has later lost its sight from *ophthalmia neonatorum*, or its hearing from one of the ordinary infectious fevers, cannot be regarded as degenerate. Under a proper system, such a child is quite teachable and responds remarkably well. There are, of course, some cases of true hereditary and congenital defectiveness, where the whole organism is involved in the ruin; weedy specimens, educationally abnormal and psychically backward. By routine medical examination before admission, we seek to classify and group all cases, excluding the hopeless, and tabulating the degree of physical and mental development of the possibles and probables.

Constant medical and dental supervision and a comprehensive annual inspection provide valuable data for recording progress made throughout school life. Children regarded as doubtful are admitted on probation for observation purposes, being rejected or retained after a reasonable trial.

Seeing that we are dealing with a boarding-school for healthy boys and girls minus only a special sense, it is eminently undesirable to accept semi-imbeciles or degenerates. A careful selection is imperative if a wholesome atmosphere is to be maintained.

Many children, particularly the deaf, enter the institution painfully backward and neglected. Deafness is a worse misfortune than blindness, as the most vital mental stimulus—the sound of the voice—is lost. The deaf child has nothing to show and fails to elicit the sympathy and understanding accorded the blind. Parents, as a rule, lack the knowledge or do not possess the patience to communicate with their child, who tends to become dull, sullen and morbid. Left to his own resources, the child often acquires associations and habits that need tact, ability and perseverance to eradicate. Early training maintained on right lines is essential to success. Successive Governments have promised to introduce a compulsory system of attendance, but, so far, without result. Practically every State in the Commonwealth, except own own, has adopted it, following the lead of most enlightened countries. England, usually conservative, has made provision for compulsory attendance from five to sixteen and will even pay grants from the age of two years. This preparatory, or Kindergarten, course has been embodied in many countries in a comprehensive scheme for the welfare of the blind and deaf, which includes after-care, with facilities for industrial and vocational training.

Owing to the lack of compulsion in New South Wales, the average school period here is not more than five years. Children start late and leave early. As it takes at least five years to give these children an ordinary elementary education, anything much in the way of technical education is out of the question.

The characteristic feature of a school such as this is the sustained effort to develope intellectual powers and physical fitness to the utmost capacity. It is a process combining a way of life with a system of education and medical treatment. The general and

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on August 13, 1920.

special measures, as carried out, result in increased spontaneity and mental alertness, added vigour and muscular tone, keener appetite and comparative freedom from the various minor ailments. I shall only enumerate:

(1) Hygienic life, comprising personal cleanliness, rest, sleep, recreation, etc..
(2) Wholesome and sufficient diet.
(3) Fresh air and sunlight.
(4) Physical culture and organized play.
(5) Individual attention.
(6) Medical treatment.

My experience has been that school discipline, dependent largely on the personality of the staff, produces extraordinary improvement in the health, manners, disposition and character of the pupils. Success presupposes:

(*i.*) Careful selection and classification of children to be admitted.
(*ii.*) Proper organization and expert teachers.
(*iii.*) Appropriate environment.
(*iv.*) Constant medical supervision.
(*v.*) Parental co-operation.

Far from crushing individuality, happy institutional life encourages and strengthens it, setting solid foundations for self-confidence and efficiency.

A NOTE ON HYMENOLEPIS NANA IN NORTH QUEENSLAND.

By **P. A. Maplestone, M.B., Ch.B. (Melb.),**
From the Australian Institute of Tropical Medicine, Townsville.

For a considerable time the eggs of a species of cestode have been recognized in the fæces of a relatively large number of the inhabitants of North Queensland. This fact has been emphasized since the inauguration of the Hookworm Campaign, with the attendant large number of examinations of centrifugalized stools.

The following figures are given as an indication of the incidence of infection:—

	No. Examined.	No. Infected.	%
Waite (1918)	14,577 ..	51 ..	0.35
Half-yearly Report, Australian Institute of Tropical Medicine, July 1 to December 31, 1918 ..	2,420 ..	27 ..	1.1
Townsville Orphanage, October 15, 1919	82 ..	3 ..	3.6
Townsville Orphanage, April 28, 1920	72 ..	13 ..	18.0

It is at once apparent that these results do not coincide, those from the Institute being much higher. This is probably because the last three figures all refer to children and it is a well known fact that young people are more liable to helminth infections than adults. The figures given by Waite (1918) are the result of the examination of the general population and thus include more adults than children. They are probably lower on this account.

The two results referring to the Orphanage should not be taken as any indication of the prevalence of the infection, as they are obviously too high; they are only included to show the danger of drawing conclusions from a small number of cases.

The worm itself has now been recovered from human beings and has been identified as *Hymenolepis nana* (v. Sieb.) after the description by Blanchard (1891). It has previously been reported in many other parts of the world since its discovery by Bilharz in Cairo in 1851, but this is the first time its presence has been recorded in human beings in Australia. H. Johnston (1918) reported it in rats in Sydney in 1910, which is the first mention of it in Australia, and Waite (1918) found the eggs in human fæces for the first time, but makes no mention of finding and identifying the worm.

As the eggs are liable to be encountred at any time, the following brief description may be a help in their identification:—

They have a thick shell and are globular or oval in shape. They measure 30 μ to 37 μ in diameter when round, but when oval they may be as much as 50 μ to 55 μ long. The oncosphere is only 16 μ to 19 μ in diameter and is surrounded by two coverings separated by a clear space. Within it the six hooks can usually be made out.

Except in heavy infections the eggs are not easily found, it often being necessary to centrifugalize and examine several preparations before they are discovered.

In the fresh stool the worms appear as minute whitish threads, broader at one end than the other. They are only from 8 mm. to 15 mm. long, more rarely 20 mm.. It is exceptional for a complete worm to be found, because they are usually broken into fragments.

Under a low power of the microscope, or even a powerful hand lens the head is seen to be globular and about twice the diameter of the neck, which is relatively long. The head is furnished with four relatively deep suckers and a thick rostellum at the anterior end, armed with 24 to 28 or 30 hooks. It is usually retracted within a deep fossa and is consequently not readily made out. The proglottides are always broader than long and number 140 to 170.

Many symptoms are attributed to infection with this worm, as may be seen by the frequent references in the literature. But these should be accepted with caution, as they are in no way characteristic and, as a rule, only one or two cases are reported at a time, which is not sufficient material on which to base a definite and extensive symptomatology.

The symptoms referred to are usually those of gastro-intestinal derangement, with sometimes the various nervous signs common in children in these conditions. A full description is given by Lütz (1894).

In practice, in Australia, at all events up to the present time, no cases with symptoms referable to *H. nana* infection alone have been observed. As an illustration, the following case is worthy of note.

A child of ten was recently treated for the condition. She was apparently in perfect health, the presence of the worm only being accidentally discovered during an examination for *Anchlystoma duodenale*, but as the eggs were in large numbers, it was decided to treat her. After a single treatment with *ext. filic. maris*, over 1,000 worms were recovered from her stools. This clearly proved that a heavy infection can exist without causing apparent trouble.

Further, Breinl (unpublished) has noticed among a number of Italians in North Queensland, with mixed infections of *A. duodenale* and *H. nana*; several of them complained of gastric pain and discomfort. It was thought that the symptoms may have been due to one or other of the above worms. But when they were quite cured of both helminth infections, the symptoms persisted, thus proving that this was not the case.

Diagnosis of the condition can, therefore, only be made by finding the eggs in the stools (*vide supra*).

Treatment is the same as in any other tapeworm infection and at the Australian Tropical Institute extract of *filix mas* has been found the most efficient vermifuge. But the following precaution is necessary to effect a cure, *viz.*, a second treatment should follow the first at an interval of about a fortnight.

The reason for this is that it is thought *H. nana*, unlike most other cestodes, is able to develope to the adult stage in the original host without intervention of an intermediary.

If this is assumed to be the case, the rationale of the double treatment is clear, because the first treatment destroys the adult worms in the gut, but does not affect the larval forms or eggs, which then go on to full development. The stage up to maturity takes about fourteen days and so the second treatment destroys these freshly-developed worms before they begin to deposit eggs and thus continue the infection.

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Reports of Cases.

TWO CASES OF ABDOMINAL INJURY.[1]

By **F. O. Stokes, M.B. (Syd.),**
Taree, New South Wales.

I. Mrs. S., a young married woman, met with an accident through a motor-car overturning at 4 p.m., on a Sunday. She was first seen at 5 p.m. on the same day. She complained of severe pain in the right hypochondrial region, extending round to the back. There were nausea and vomiting. On examination, it was found that the patient had a good, full colour. Her breathing was slow, but catchy and painful. The pulse was full and regular, at the rate of 56 beats per minute. The pupils were noticeably dilated. The abdomen moved freely with respiration, but there was considerable tenderness and some rigidity in the upper part of the right side, but no distension. The liver dulness was not decreased, nor could any dulness be elicited in either flank on light percussion. The patient had passed water.

Reliable eye-witnesses stated that the patient had fallen on to her back. There was an abrasion over the lower ribs on the right side confirming this statement. Morphine sulphate, 0.01 grm. was administered. The patient was removed fifteen miles to hospital. The movement of transport caused her much pain and distress. At 8 p.m. there was no alteration in the condition. In view of the indefinite nature of the symptoms, it was decided to await further developments. At 6 a.m. on the Monday I became convinced that there was a commencing peritonitis, for the following reasons:

(*i.*) The patient had passed a painful and sleepless night.
(*ii.*) She had vomited several times.
(*iii.*) An enema had been given without result.
(*iv.*) The pulse rate had increased to 110; the volume had become much smaller.
(*v.*) There was considerable distension of the abdomen, with increase of tenderness and rigidity.

The patient was accordingly submitted to operation at 9 a.m. It was difficult to account for the condition, as there was no evidence of rupture of a hollow viscus and the injury did not seem severe enough to have ruptured a solid viscus. What evidence there was, *viz.*, the position in falling and the nature of the pain, pointed to the liver.

Under ether anæsthesia the usual vertical gall bladder incision was made. When the peritoneum was opened, a large quantity of free blood was encountered. As much of this was swabbed out as possible and it was found that the source of bleeding was situated deep down in the kidney pouch, well up against the spine. As it was impossible to get a good view of this through the incision already made, a transverse incision was made, commencing from the centre of the former wound and extending 6.25 cm. towards the right. This allowed the liver to be freely lifted up over the costal margin and it was seen that the bleeding was coming from a rupture of the peritoneum, where it is reflected from the posterior wall of the abdomen on to the liver. The rent was immediately over the inferior *vena cava*. A bleeding vessel was secured and tied. The torn peritoneum was sewn up with catgut. As the pelvis was full of blood clot and no further abdominal injury was found, a suprapubic incision was made for the purpose of washing out the pelvis and general peritoneal cavity and of providing suitable drainage. The site of the injury was lightly packed with gauze, the end of which was threaded through a tube projecting from the lumbar region through a separate stab incision. The incision was then sewn up in layers with catgut and fishing gut.

Subsequent History.—The patient's temperature rose from 37.7° to 38.6° C., accompanied by rather rapid pulse for the first few days. The bowels even moved on the second day and the tubes were removed. The patient appeared to be doing well, except for constant pain in the back, where an ecchymosis had by this time developed. At the end of a week curettage was done, on account of vaginal bleeding and a history of six weeks' amenorrhœa. All pain immediately disappeared and the temperature and pulse became normal.

Four days later the patient again complained of pain in the original situation, with headache. The temperature rose at first to 37.2° C. and then to 38.3° C. and the pulse-rate increased correspondingly. Both stab wounds had healed and the original wound appeared quite sound, but was tender on pressure. The patient was again anæsthetized and a sinus forceps inserted into the healing wound, from which a large amount of muco-pus was evacuated. This gradually cleared up and the patient was discharged convalescent five weeks from date of injury.

II. C.M., on May 8, 1920, was riding home with two others on his bicycle at dusk, when he was run into by a sulky coming in the opposite direction and hit in the abdomen by the shaft. His "wind was knocked out" and he vomited. He went home and changed his clothes and three hours later he drove to town, a distance of eight kilometres, and walked into my surgery. He looked pale and said he felt quite well, but inclined to vomit. On stripping him, a circular abrasion, corresponding to the shaft point, was visible below the left costal margin, over the rectus. The centre of this abrasion was white and looked as if it would become necrotic. There was no tenderness on palpation, nor dulness in the flanks. The patient had passed clear urine and flatus. The pulse-rate was 56. He was sent to the hospital for observation, because of the nausea and pallor. He passed a

[1] Read at a Meeting of the Eastern District Medical Association (New South Wales) on June 30, 1920.

very uncomfortable night and retained a copious soap and water enema. At 8.30 a.m. he complained of pain in the abdomen, which was considerably distended, tympanitic, rigid and tender on palpation. There was movable dulness in the flanks. The pulse-rate was 110 and the respirations considerably increased. Half an hour later, under ether anæsthesia, a vertical incision was made through the site of the injury, 8.75 cm. long. It was then found that the rectus, with its posterior sheath and the peritoneum, had been torn and that the omentum lay exposed in the wound. The opening in the peritoneum was enlarged to the full length of the incision and a large quantity of free blood and clots were found in the abdominal cavity. The stomach, spleen, omentum and intestines in the vicinity were examined and found to be uninjured, except for bruising of part of the omentum. By following up and removing clots, it was found that the injury consisted of a considerable laceration of the tail of the pancreas, from which active bleeding was still going on. By enlarging the incision laterally it was clearly seen that the tear in the pancreas was about 5 cm. long and at the bottom of the wound the large pulsating splenic vessel lay bare and exposed. After swabbing out blood and clots, several bleeding points were secured and tied. The laceration was sewn up with fine catgut and a split tube, carrying a gauze drain, was led away from the site of the injury, protruding from the lower end of the lateral extension of the incision. The devitalized skin and muscle were excised as far as possible and the wound closed by catgut sutures in the peritoneum and muscles, reinforced by silkworm gut interrupted sutures.

Blood-stained serum was discharged along the drain for one week, after which the tube was removed. The pulse-rate remained at 100 to 110 for the first four days. The temperature rose as high as 38.3° C.. The bowels moved on the day following the operation. The sutures were removed on the tenth day and the patient was discharged three weeks from the date of operation. No sugar was found in the urine, which was examined repeatedly.

A RARE CAUSE FOR CÆSARIAN SECTION.

By **J. C. Windeyer, M.B., Ch.M. (Syd.), M.R.C.S. (Eng.), L.R.C.P. (Lond.),**

Lecturer in Obstetrics, University of Sydney; Honorary Surgeon, Royal Hospital for Women, Sydney.

C.S., aged 29, married, IV.-para, was admitted to the Royal Hospital for Women on July 9, 1919. Her last child was born five years ago. Since then she had suffered from osteo-arthritis, which had developed rapidly and for the last four years she had been an absolutely helpless, bedridden invalid. Her menstrual periods had been regular up till November 5, 1918. Her husband stated that he had not had connexion with her since the illness started, until some "wise woman" in the district where they lived told her that if she became pregnant the joint trouble would be cured. The unfortunate woman believed this and at her request coitus was performed and pregnancy resulted.

On examination, the conditions found were as follows: Uterus pregnant about eight months, breech presentation, right sacro-anterior. Small amount of *liquor amnii*. Pelvis normal.

There was complete ankylosis of all joints of the limbs, with marked deformities of the hands and feet. The arms had ankylosed in such a position that the hands rested one on top of the other across the abdomen, about the level of the umbilicus. The legs were ankylosed in a position such as they would occupy if the patient were lying in bed with a thin pillow under her knees. The right thigh was adducted and the right knee slightly overlapped the left.

The spine was rigid, except in the cervical region, and the patient was able to raise her head off the pillow. She was also able to separate her teeth about 1.9 cm.. These two movements were the only ones that she had performed for three years.

There had been some atrophy of the sterno-clavicular joints and when the patient's hands were lifted off her abdomen, the inner ends of the clavicles disarticulated upwards and allowed the hands to be raised about 15 cm. and to be separated so that there was an interval of 7.5 cm. between them.

From an obstetrical standpoint, the main points were as follows:

The pelvis was normal and previous confinements had been normal in every way. There was an available space of about 8.8 cm. between the upper parts of the slightly flexed thighs, so that if the vertex had been presenting, there would have been just enough room for the occiput to insinuate itself between the thighs and a living infant might have been born with difficulty. In this case, however, the presentation was a breech and delivery of a living child was practically impossible, owing to the want of space for the necessary manipulations. I attempted to alter the presentation on several occasions, but was unable to do so. Therefore, I decided to let the pregnancy continue to term and then perform Cæsarian section.

The membranes ruptured on August 12, 1919, and the operation was performed two hours later, labour pains having just started. The child was living and weighed 3,175 grammes.

The arms and hands of the patient were lifted up out of the way by two nurses during the operation.

The puerperium was normal and the mother and child left the hospital on the eighteenth day.

Reviews.

THE SEX PROBLEM.

An anonymous author has produced one of the numerous books written as a result of the need for more exact and direct teaching to individual adolescents and adults on sex matters and on the proper discharge of the functions in marriage and parenthood. Medical practitioners usually recognize the need for such efforts, but find it difficult to be satisfied with anything written by another. Such dissatisfaction has evidently led the author to try a new plan.[1] He imagines himself writing four letters to his motherless daughter at four important epochs in her life—her entrance on adolescence at her twelfth birthday, on adult life at her eighteenth birthday, on marriage and on motherhood. Left loose and separate within an attractive cover like a pocket book, these pamphlets can be utilized by a well wisher at successive periods of any girl's life. While this is excellent in theory, it may be questioned whether many people would keep such booklets for a period of ten or twelve years for appropriate presentation of the single chapters at successive stages of a girl's development.

The same thoughtfulness and care that characterizes the general plan of the attempt, has been carried into the details of the letters. The writer is evidently a man of broad sympathies and wide tolerance. To his medical knowledge he has added wisdom. Consequently his advice is generally sound and flavoured with a common sense that would benefit anyone who received it. The same difficulty presents itself in connexion with this plan as with all the others. By representing himself as a widowed physician, the author tacitly admits that the task really belongs to the woman, although nowhere does he state that these things would naturally be told by the girl's mother, were she alive. The use of the letter form and the separation into letters are evidently intended to convey that human touch which disarms criticism. The author therefore has made an error in not referring to the fact that, had her mother been alive, she would have learned many things from her. Again it is somewhat strained to use phrases such as the "law of reproduction of the species" or the "continued swallowing of such septic material from the gums" in a letter to a daughter but twelve years of age. Would she not regard these expression as pedantic, even if she understood them? On the other hand, if such letters were distributed broadcast to children of other people, would not the author expose himself to the retort which he fears from his prospective son-in-law: "to stick to giving advice only when consulted"? We therefore arrive at the same position as we do with other works of this kind. The general plan can be commended; the get-up and the contents of the book are admirable for anyone who is compelled to use helps of the kind. But every care must be taken to use these letters with due regard to the physical and intellectual development of the particular individual to whom they are sent for reading.

[1] Letters of a Widowed Physician to His Daughter at Puberty, at Maturity, at Marriage, at Motherhood; 1920. London: Baillière, Tindall & Cox; Pocket size, pp. 64. Price, 2s. 6d. net.

The Medical Journal of Australia.

SATURDAY, OCTOBER 23, 1920.

Medicine of the Future.

Time was when the family doctor, the trusted friend, adviser and confidant, regarded his rôle in life as that of healer. He left to others the task of preventing disease and did not concern himself with prophylaxis beyond the threshold of his patient's house. At times he gave the very bad advice of exposing all the children to infection when one was attacked with measles, in the mistaken belief that everyone must have measles sooner or later. When he notified an infective process, he did so because the law prescribed notification, not because he recognized that the knowledge of infection enabled the health authorities to trace its source and to cope with it. Later there came a change. The general practitioner gradually awakened to the recognition of a duty to his patients. It was not sufficient to treat disease; he had to advise the healthy man how to avoid ill health and how to postpone the development of the paralysing effects of disease after the initial signs and symptoms had made their appearance. We are now entering the third stage. The great body of the medical profession can no longer ignore that part, perhaps a great part, of its activities must be directed to the co-ordinated endeavour to combat disease in the mass. The treatment of isolated illness in the individual is a necessary work. Men pay for it and everyone who is ill and fears that the illness may be of serious consequence, claims curative attendance from some practitioner. Moreover, some diseases are curable and the restoration of perfect health is an achievement worthy of the performance. We are, however, becoming aware that in the majority of cases the practitioner can do little more than alleviate suffering, possibly remove symptoms and even check to some extent the course of a disease. His services are in this respect that of comforter and friend rather than healer. The prospect of preventing the outbreak of disease in the individual is not favourable as a rule. A far more promising outlook is offered when a disease within a community is attacked and the combined efforts of trained practitioners are directed towards its eradication. To stamp out a disease is to perform an inestimable service to the community, incomparably greater than the curing of a single patient. It is dawning upon every medical practitioner now that his energies must be utilized to an ever growing extent to this end.

The Australasian Medical Congress at Brisbane resolved that the time had arrived for a real and effective campaign of preventive medicine to be initiated. A recommendation has been addressed to the Commonwealth Government to appoint a Royal Commission of experts to consider how such an undertaking could be carried into effect and how existing agencies could be used for this purpose. With the establishment of a Federal Ministry of Health in the air, with the backing of the Federal Committee of the British Medical Association in Australia in regard to the development of a scheme of preventive medicine and with the determination of many energetic medical practitioners to grapple with disease at its source rather than after it has scored its victories, the outlook for the future of medicine is most encouraging.

The institution of a comprehensive and active warfare against disease calls for a re-adjustment of medical practice to fit in with the new order of affairs. The practitioner will be required in the future, as in the past, to treat disease, but he will have many other duties to fulfil. His diagnosis must improve steadily as knowledge of pathology and ætiology advances. What was regarded as ultra-scientific by practitioners fifty years ago is to-day ordinary knowledge. As each decade comes and goes, the mysteries surrounding the pathogenesis of disease and of the altered physiology of the body in disease disappear. We have a long way to go, but the march has begun and cannot be stemmed. The general practitioner is seeking the aid of expert specialists in many branches of medical practice to arrive at an exact diagnosis. As the demand increases, the supply must offer itself. More practitioners will have to be trained as bacteriologists, protozoologists, bio-chemists and physicists to help in the immense work of recognizing disease before it gets out of hand. There is ample room for practitioners to take up these forms of practice out-

side the public services. With extending education the public is beginning to demand refinements in examination. Team work has come to stay and the team worker need have no misgivings as to his future. The army to be enlisted in the great war against disease will be a large one. The enemy is powerful, evasive and numerically superior to-day. Human ingenuity and determination pitted against foes of this kind are bound to win in the long run. We must be in real earnest.

THE UNIVERSITY OF MELBOURNE.

In the year 1919 no less than 1,987 students were in attendance at the University of Melbourne. The students contributed £41,268 out of a total of £76,494, that is, 53.9% to the total income. The Government handed over to the University the sum of £26,983, while only £8,243 represented the income from endowments. Higher education is at all times costly. The education of medical students is no exception to this rule. It has at times been stated that a medical school should be self-supporting, that the students' fees should cover the cost of their training. Apart from the impracticability of such a proposal, those who have advanced it, appear to forget that the community as a whole is dependent on the proper training of men and women as medical practitioners. It is therefore everybody's concern that our large universities and especially those equipped with medical schools, should be adequately supported. The students in Melbourne pay quite enough. The Government is asking Parliament to increase the grant, but it is obvious that all the needs of this great institution cannot be provided out of consolidated revenue. On September 25, 1920, the Chancellor of the University published an appeal to the public of Victoria for monetary support for the University. This appeal contains the main facts connected with the position of the University. Nothing need be added to induce the graduates residing in Victoria to contribute to the fund for the development and continued usefulness of their *alma mater*. We trust that the appeal will reach the financial magnates of Australia and find them prepared to unload a substantial portion of their wordly goods for this worthy cause. We need men of the Rockefeller or Carnegie type in Australia, men who recognize the immeasurable value of education and research to any nation and the wisdom of endowing well-organized institutions to enable them to expand and to perform adequately their important functions. Failing a large endowment by a millionaire, the Chancellor asks the people and more especially those associated directly or indirectly with the University to provide £100,000. A medical graduates' sub-committee, with Mr. G. A. Syme as Chairman, has been formed for the purpose of approaching medical practitioners who have graduated in the University of Melbourne. Many of these graduates reside in other States. We would address these men more particularly in asking for liberal support for the University appeal fund. Half starved as far as money is concerned, the Melbourne University cannot continue to provide efficient training for the ever increasing number of students unless its income is very considerably enhanced. At present the income from all sources represents a little more than £38 11s. per student, while the income of the University of Sydney amounts to over £45 3s. per student. The graduates of Melbourne have now a chance to translate their affection for their wonderful medical school into practical language.

CARDIAC MASSAGE.

Massage of the heart has for some years been recognized as a measure occasionally useful in the resuscitation of patients suffering from heart failure arising during chloroform anæsthesia. It has been maintained that the function of massage was to establish an artificial circulation and that this must necessarily be associated with a system of artificial respiration.

Dr. A. Goodman Levy[1] has recently published the results of a series of experiments in which a study has been made of the effects of cardiac massage in the treatment of heart failure due to ventricular fibrillation artificially produced in cats. Previous experiments performed on dogs in which heart failure was produced by asphyxia, by an excess of chloroform or by fibrillation resulting from electrical excitation, led to the conclusion that rhythmic compression of the ventricles associated with perflation of the lungs was an efficient means of restoring an energetic ventricular beat following syncope from asphyxia and chloroform poisoning; but when syncope followed a condition of ventricular fibrillation produced electrically, restorative measures were usually unavailing. As a result of these observations in the case of dogs the view was commonly held that ventricular fibrillation was an irrevocable catastrophe. The recent experiments on cats have, however, demonstrated that in these animals the fibrillation is most often found to be transitory and that there is a tendency towards spontaneous recovery from ventricular fibrillation however produced.

In the series of 20 recorded experiments in the latter animals in which ventricular fibrillation was produced by the chloroform-adrenalin reaction, it has been shown that a tendency to recovery occurs during the active stage of fibrillation, which continues for a period of about one minute after the symptoms of syncopal failure have appeared. Should recovery not take place during this period, the second stage of fibrillation arises in which the ventricles become dilated and lose their active movements, only faintly visible flickerings remaining, often confined to the neighbourhood of the inter-ventricular septum. If the ventricles in the second stage of fibrillation be compressed rhythmically in conjunction with perflation of the lungs, they become less dilated and gradually resume active and visible undulations, returning to the first stage of active fibrillation.

From these observations it appears that the second

[1] *Heart*, April, 1920.

stage of fibrillation is in reality fibrillation occurring in ventricles which have become asphyxiated through depletion of blood. The effect of rhythmical compression with artificial respiration is to remove the asphyxial condition of the heart muscle and so to restore the fibrillating ventricle to a condition in which the natural tendency to recovery may be exerted. Under these conditions in the cat recovery invariably occurs sooner or later, the transition from fibrillation to a regular beat taking place quite suddenly. The process of massage appears to act mechanically, the rate of the manipulations being unimportant. Should the normal muscular contraction fail to reappear in the course of five minutes of regular massage, short pauses up to 45 seconds in duration were observed to conduce to active fibrillation with frequent transition to a spontaneous beat. The duration of massage required before recovery ensued was found to be very variable—from ten seconds to 48 minutes in the animals observed.

The clinical application of these experiments is a matter of great importance in view of the relationship which has been previously established between ventricular fibrillation and chloroform syncope. Since abundant evidence exists that spontaneous recovery from chloroform syncope may occur in the case of the human heart, it might reasonably be inferred that massage, if properly performed, should be almost uniformly successful in such a condition. The duration of the interval between the moment of syncope and the commencement of massage does not appear to be closely connected with the results so far as recovery of the heart's action is concerned. There is, however, a distinct limitation of this period governed by the effects of prolonged asphyxia in the central nervous system.

It is considered probable that about five minutes' loss of circulation is the outside limit of time that the human brain can withstand and yet recover completely. The author concludes that in cases of chloroform syncope a period of at least two minutes should be allowed to elapse for spontaneous recovery under artificial aspiration to occur, before any operative procedure should be undertaken to institute cardiac massage. After this period massage should be performed through an abdominal incision. It is suggested that the attachments of the diaphragm to the left costal margin should be divided for a distance of five centimetres, the hand inserted into the left pleural cavity and the heart grasped outside the pericardium. The success of the procedure depends upon the efficient compression of both ventricles combined with an efficient system of artificial respiration, preferably perflation of the lung by intratracheal insufflation.

In cases of heart failure resulting from overdosage of chloroform artificial respiration alone when promptly performed, is usually sufficient to restore the patient. Should this measure prove ineffective, cardiac massage should be practised. In such cases this method of treatment might be expected to be as effective as it is in the case of ventricular fibrillation resulting from primary chloroform syncope.

THE ORDER OF THE BRITISH EMPIRE.

It has been announced that His Majesty the King has been graciously pleased to approve of a large number of appointments to the most excellent Order of the British Empire. Every scientist will note with intense satisfaction that the honour of knighthood has been conferred on Professor Tannatt William Edgeworth David, C.M.G. The medical practitioners who have been appointed to the third class as Commanders of the Order of the British Empire, are Doctor William Nathaniel Robertson, of Brisbane, and Doctor Thomas Ernest Green, of Bendigo. We offer both our hearty congratulations.

THE ANDERSON STUART MEMORIAL FUND.

A conversazione will be held at the Medical School of the University of Sydney in aid of the Anderson Stuart Memorial Fund on November 12, 1920. His Excellency the Governor of New South Wales, Dame Margaret Davidson, the Honourable the Premier of New South Wales, the Chancellor of the University of Sydney, the Dean of the Faculty of Medicine and the President of the New South Wales Branch of the British Medical Association have announced their intention of being present. We are informed that an attractive programme of lectures, demonstrations, etc., will be provided. Invitations will be issued to persons nominated through or by members of the University of Sydney Medical Society. The charge for each nomination is 5s.. The nominations should be sent to the Secretary of the Medical School.

The Council of the University of Sydney Medical Society appeals to the members of the Society and of the medical profession to be present. A large attendance is expected.

THE FIRST CONGRESS OF THE SOCIETY OF DENTAL SCIENCE OF NEW SOUTH WALES.

Through the courtesy of the Editor of *The Commonwealth Dental Review* we have received an advance copy of the general programme of the first annual Congress of the Society of Dental Science of New South Wales. The Congress will be held in the King's Hall, Hunter Street, Sydney, on November 15 and 16, 1920. His Excellency the Governor, Sir Walter Davidson, will open the Congress in person. It is anticipated that the Minister of Health, the President of the New South Wales Branch of the British Medical Association, the Deans of the Faculties of Medicine and of Dentistry of the University of Sydney, the President of the Dental Board and the President of the Dental Association of New South Wales will be present.

The Congress will be open to members of the Society of Dental Science, New South Wales, and to members of the Dental Association of New South Wales. Other dental practitioners may be admitted as subscribers at the discretion of Committee of the Society of Dental Science. Medical practitioners interested in stomatology are invited to attend the Congress. Applications for admission should be addressed to Dr. P. Chater Charlton, Honorary Secretary of the Society of Dental Science, "Rushall," Pymble, New South Wales.

Among the papers announced are several dealing with anæsthesia, both general and local, one on dental bacteriology, one on "Preventive Dentistry" and a few on suppurative and other pathological processes of the oral cavity. Papers by the following medical practitioners are announced: Professor A. E. Mills, Dr. A. J. Brady, Dr. M. C. Lidwill and Dr. W. Dight. We anticipate that the meeting will be an instructive and interesting one.

A conference on venereal diseases will take place in Washington, D.C., during the second week of December. The conference has been organized by the United States Social Hygiene Board, the United States Public Health Service, the American Red Cross Society and the American Social Hygiene Association. The president of the conference will be Dr. William H. Welch, of Baltimore.

Abstracts from Current Medical Literature.

ORTHOPÆDIC SURGERY.

(121) Injuries to the Sesamoid Bones of the Great Toe.

A. H. Frieberg holds the opinion that the sesamoid bones of the great toe are commonly the seat of traumatic change and are subject to all the varieties of trauma which are common to the better-known congener, the patella. Moreover the mechanism of production is similar (*Journ Orthop. Surg.*, August, 1920). The author has seen several instances in which the line of fracture was of such a character and direction that its traumatic nature would be universally acknowledged. The greatest interest, however, is attached to those cases in which the radiographer shows the division to be more or less transverse and in which the patient is unable to furnish a definite history of violence or to recollect a sudden onset. In fourteen cases the author felt justified in ascribing the cause of disability to the division of the medial sesamoid bone which was demonstrated by X-ray examination. Tenderness in these cases was localized over the medial sesamoid bone. There is a difficulty in interpreting the skiagram, as it has been established beyond doubt that there is frequently a congenital division of the sesamoid bones which fails to give rise to any symptoms. Stumme claims to be able to distinguish the acquired from the congenital division of the sesamoid bones by the fact that a fracture shows sharp and pointed corners and the fragments are irregular in shape, whereas rounded corners and an oval shape are characteristic of the congenital division. Even in the case of congenital division it is to be remembered that the sesamoid bone may become the seat of a cross-breaking strain, which may cause damage to the fibres which connect the two divisions. In three of the cases observed there has been an appearance in the sesamoid as of new bone formation and some progress towards union of the fragments; in two cases the medial sesamoid of the symptomless foot had a dumb-bell shape, suggesting either that a fracture had healed or that the bone was congenitally thin at this point. None of these cases was subjected to operation excepting one of luxation. The treatment consisted of the application of a thick pad of felt immediately posterior to the point of tenderness and its retention by means of adhesive plaster. Symptoms were relieved promptly in all cases by this means.

(122) Physical Training.

E. P. Cathcart (*Journ. Royal Army Med. Corps*, August, 1920) has come to the conclusion that no subject has suffered so severely as physical training at the hands of its devotees. It has been the beloved child of the fanatic, the toy of the up-to-date educationalist and the sport of the charlatan. Many and varied ideas and doctrines have been formulated, but the main and important side of the subject—the physiological aspect—has been badly treated. Muscles are important as the transformers of the potential energy of the foodstuffs into the energy of movement, but there are more vital underlying considerations. Every type of training experience has led to one conclusion, namely, that it is on the heart that the stress of exercise falls most heavily. Dilatation of the heart during exercise is to be looked upon as a normal process to meet a markedly increased venous flow. The dilatation is kept within moderate limits by the acceleration of the pulse-rate. In the trained athlete this acceleration is less than in the untrained man, owing to the fact that the contractile power of the heart in the untrained is less and the deficiency must be made up by an increase in the rate of beat. There is absolutely no evidence that the healthy individual is injured in any way by hard muscular work, provided that an excessive pace be not adopted. The idea usually involved in the advocacy of deep breathing exercises is wrong in the main and even dangerous in practice. There is no evidence that the respiratory mechanism ever fails in the normal individual to supply an adequate amount of oxygen to meet the demands of the organism. Training in reality consists of two things, the gradual development of the muscles and the co-ordination of the heart and lungs, so that the supply of oxygen to the tissues under all conditions of expenditure will be adequate. The enlarged heart of athletes is a perfectly physiological phenomenon. With training there is a progressive fall of the pulse-rate and in athletes the actual rate of the heart beat is considerably lower than that usually considered normal. More important in the opinion of the author is the fact that training properly carried out leads to a more perfect co-ordination and increased economy of movement. This is due to a large extent to the training of the central nervous system. The secret in actual training lies in the measurement of the doses. The average man and not the expert should set the pace. Variety is the spice which lends flavour to routine and is a big factor in sustaining interest and enthusiasm.

(123) Club Foot.

W. S. Vorrall (*Canad. Med. Assoc. Journ.*, July, 1920) prefers to defer treatment of club foot until the child is from ten to fifteen months old. He contends that the use of bandages and splints brings about blood starvation, which lessens growth and development. Massage and passive movements, however, should be employed from the first to produce a flexible foot. The active treatment should begin with the correction of the varus part of the deformity. This is done by manipulation and, if necessary, by subcutaneous section of the plantar fascia. The foot is retained in plaster for two or three weeks. The process may be repeated until the deformity is overcorrected. The *tendo achillis* should not be cut as the first step in the operation. At each manipulation to correct the varus the third element of the deformity, namely, supination, is also reduced. The equinus part of the deformity usually requires section of the *tendo achillis* with retention of the foot in plaster of Paris for four or five weeks. Stress is laid on correct footwear, the soles and heels of which should be raised on the lateral sides. A night splint should also be worn as the pressure of bed clothes tends to cause a relapse. In the treatment of adults the principles laid down do not materially differ.

(124) Flail Shoulder.

A successful result in the treatment of flail shoulder was obtained by F. F. S. Ulrick (*Brit. Journ. Surg.*, July, 1920) under very adverse circumstances. The patient was a soldier who had lost the head and neck of the humerus, together with the deltoid muscle. The operation was performed about four months after the date of injury. In the region of the glenoid a tunnel about 6.25 cm. long was drilled and a tibial graft about 15 cm. long was fitted at an angle of 80° abduction and 25° flexion. The graft was hammered tightly into the glenoid cavity and pushed into the medullary cavity of the humerus. On account of the fact that the graft did not fit firmly into the humerus, a wire was passed through both bones to fix the humerus firmly against the glenoid. The limb was plastered in the abducted position for four and a half months. There was a little discharge from the wound until the wire was removed. The arm became 8.75 cm. shorter than the other limb, but the function of the upper limb was greatly improved.

(125) Congenital Dislocation of the Hip.

H. P. H. Galloway has not been satisfied with the manipulative treatment of congenital dislocation of the hip and after reading H. M. Sherman's observations on the condition of the capsule of the hip joint in twenty-eight cases treated by arthrotomy, decided to treat all cases by open operation (*Journ. Orthop. Surg.*, July, 1920). The popularity of the manipulative treatment is due to the fact that it was a considerable advance in the treatment of what was regarded as a hopeless condition, but it is really a blind and uncertain procedure. The best age for operation is between two and three years and for young patients the author prefers the anterior approach to the hip joint. In single dislocations there is practically no age limit to treatment by open operation. In double dislocations in children both hips should never be treated at one time. The effect of the operation on one hip should be estimated before undertaking the treatment of the other. In a total of 38 operations there were 12 cures, 14 good results, 6 failures and 6 doubtful results.

MORPHOLOGY.

(126) Pulmonary Artery in the Mammalia.

Geo. S. Huntington (*Anat. Record*, December 20, 1919), from a study of the development of the pulmonary artery in the cat and albino rat, presents the following conclusions. The mammalian pulmonary arteries do not arise primarily as outgrowths from the ventral segments of the sixth aortic arches, nor do they reach the lung by a process of continuous growth in a caudal direction to it. They develope by the union of a number of originally independent vascular *Anlagen* (forming a capillary plexus round the lung and œsophagus or pulmogular rudiment). This plexus, developed from a series of dorsal aortic segmental arteries, obtains a secondary connexion with the sixth aortic arch of each side. The main pulmonary artery developes independently of the sixth arch by the organization of a distinct arterial channel in this plexus. His phylogenetic interpretation of these findings is as follows. In the prevertebrate and earliest vertebrate types the respiratory exchange was partly carried on by a series of modified metameric areas of the intestinal tube, perhaps extending over the greater part of the alimentary canal (*e.g.*, balanoglossus) and supplied by a corresponding metameric series of intersegmental afferent vessels from the aorta. With the concentration of respiratory function to a few branchial slits close to the mouth, the series of the aortic arches developes as the sole afferent vessels in the higher water-breathing types and the more caudally situated primitive multiple aortic afferents are suppressed or diverted to other functions of the digestive tract. With the final replacement of the branchial by the lung type of respiration, a fresh re-arrangement of the vascular relations is necessitated. This calls into service both (*a*) the distal aortic arches, *i.e.*, the sixth, and their connexion with the truncus of the heart and (*b*) again resuscitates the series of the primitive aortic afferents supplying in the early phyletic stages that portion of the intestinal tube from which the lung now grows out. There are, therefore, three stages: (*i.*) a long tube with large numbers of segmental respiratory patches or pouches (*amphioxus*); (*ii.*) concentrated anterior branchial apparatus (fishes); (*iii.*) post-branchial lung evagination from the intestinal tube, which utilizes partly some of the vessels of the concentrated branchial apparatus and partly some of the suppressed older vessels of the first generalized stage. The author discusses very fully previous work on the development of the pulmonary artery and also brings forward evidence from amphibia and reptiles in support of his interpretations. In many of these the lungs are partly supplied by what may be called aortic intercostal arteries. The light thrown upon variations in the pulmonary and bronchial arteries is also discussed.

(127) Migration and Sex Recognition in Frogs.

While the habits of frogs have been described by numerous writers, but little emphasis has been accorded the important phases of migration into the ponds for breeding and the method of sex recognition. Harold Cummins, in the *Journal of Experimental Zoology*, April 5, 1920, records the results of a series of observations devoted to aspects of the breeding behaviour. The data on migration were obtained from the catch of a frog-trap placed about 60 cm. from the edge of a pond and extending some two-thirds around the pond. With the approach of spring frogs desert their hibernation quarters for breeding places. Many of them hibernate at the bottom of the same ponds where they breed, but some winter elsewhere, perhaps in nearby bodies of water or in such favourable locations on land as in masses of dead vegetation. Migration occurs both during day and night and occurs in waves during periods of high relative humidity coincident with temperature ranging between about 5° and 10.5° C. By continuous, short-period, day and night records of the croaking of frogs it was found that intense migration followed periods during which there was no croaking in the pond or about it, and that great vocal activity was not followed or accompanied by increased migration. It is concluded that voice does not direct the movements of the frogs during the period of migration. Observation in the open and numerous experiments *interalia* lead to the conclusion that sight plays no rôle in the attempt of the male to clasp the female except to inform him that there is something to be clasped. Sight was not found to be essential for correct coupling and is believed to play no rôle in sex recognition. Males were found to clasp other males, as well as females, but clasped males at first only croak when touched; if the attempt to clasp him were continued, violent struggles, croaking and inflation of the vocal sacs were followed by dislodgment of the clasping male. Females when clasped show usually brief and weak resistance and the clasp is nearly always retained. The variation in resistance offered by females may be explained by a gradual development of the physiological state favourable for clasping. Sex recognition as manifested in normal pairing thus results from the differential behaviour of the two sexes when clasped and depends on the reaction of the clasping male toward this differential behaviour.

(128) The Vascularity of the Nervous System.

Although the blood supply of the brain, the relation of the principal vessels and the difference in vascularity between the grey and white matter in the brain and spinal cord have been fully discussed, there does not seem to have been any attempt hitherto to make an exact quantitative comparison of the vascularity of the various structures in the central nervous system. E. H. Craigie presents his results of this latter subject (*Journ. Compar. Neurol.*, June 15, 1920). The work was done on albino rats killed with coal gas and injected through the aorta with carmine gelatine. The brains were fixed in Bonin's fluid, imbedded, cut and stained with picric acid. It was found that the grey matter is much more richly supplied with capillaries than is the white matter, the poorest part of the grey matter being nearly half as rich again as the richest part of the white. All parts of the white matter are not equally vascular, the pyramidal tract, the richest part in the cord, being about twice as well supplied as the *fasciculus cuneatus*. The grey centres can be sharply divided into two groups, the motor nuclei and the sensory and correlation centres, of which the latter are richer than the former. The *substantia gelatinosa rolandi* of the cord is the only part which does not conform to this statement. The richest of the centres observed is the dorsal cochlear nucleus, which is more than half as rich again as the ventral cornu, about two and a half times as rich as the *substantia gelatinosa* and eight times as rich as the cuneate fasciculus. Great individual variations occur and the two sexes do not seem to show any constant difference.

(129) Normal Lipoid Content of the Kidney.

Christianna Smith (*Amer. Journ. Anatomy*, March 15, 1920) has made a series of observations on the lipoid content of the various portions of the kidney tubules in the cat, dog, rabbit and white rat. She defines lipoids as fats, fatty acid, phosphatids, cholesterol, etc., substances which have a common solvent and which are found associated in cytoplasm. Three methods of staining were used: (*i.*) fresh tissue stained in an alkaline alcoholic solution of scarlet red; (*ii.*) material fixed in bichromate solution (Bell's acidified potassium bichromate, heated to 51° for 48 hours); (*iii.*) material preserved in various osmic acid fluids. In the proximal convoluted tubules of the cat were found fine granules, solid red, and annular granules. These granules varied apparently according to the "condition" of the animal. In the medullary segment of the proximal tubules, coarse, vacuolated granules and annular droplets were seen, but they were not as well marked in young as in old cats. In the descending limb of the medullary (Henle's) loop, fine red granules were found. In the ascending limb of the medullary loop and in the distal convoluted tubule rods and granules of lipoidal nature were seen and in the collecting tubules fine red granules. The author gives an account of the observations of other investigators. Fischer and Hooker had expressed the opinion that lipoids are present in normal cells in finely divided state. The lipoid is kept in fine emulsion by various hydrated proteins. According to these observers, fatty degeneration is merely the result of an interference with the hydration of the protein, due to the action of acids.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch was held at the New South Wales Institution for the Deaf and Dumb and the Blind, Darlington, on August 13, 1920, Dr. W. F. Litchfield, the Honorary Medical Secretary, in the chair.

Mr. H. Earlam, the Superintendent of the Institution, gave a demonstration of the oral method of educating the deaf. He explained that, while the hearing child used words to express its thoughts and to understand what others wished to convey to it, the deaf child could not be approached directly by means of spoken words. The method involved the analysis and breaking up of words. He then proceeded to show how the sounds used in the English language could be classified in accordance with the manner of the production of each. First, he dealt with the consonantal sounds, both explosive and continuous. The child's attention was directed to the movements of the teacher's lips, to the position of the tongue, to the breathing and to the sensation induced by laying the hand on the speaker's chest and throat and feeling the breath expelled from the mouth. The sounds *p*, *t*, *k* and *ch* were first learned. These sounds were simple, non-vocalized consonantal sounds. Next came the vocalized consonantal sounds, *b*, *d*, *g* and *j*. The third set comprised the nasal sounds, *m*, *n*, *ng*. The next series was the continuous consonantal sounds. These included *f*, *s*, *sh*, *v*, *z*, *zh*, *l* and *r*. Leaving the consonantal sounds, he showed how the vowel sounds could be arranged according to the length of the vocal cavity and the position of the tongue. The sounds *ar*, *er*, *au*, *oo*, *o*, *ei*, *e*, *i*, *ee* and *u* could be uttered by an imitation of the shape of the mouth, the position of the lips and tongue and visible effort on the larynx. After these vowel sounds had been mastered, the children learned the diphthong sounds, *ow*, *oy*, *ay*, *igh*, *ew* and *oa*. Mr. Earlam pointed out that the position of the sound was not always constant. It was often necessary to anticipate the vowel sound when the consonantal sound had been appreciated. Some sounds were not capable of direct observation. He stated that no deaf child could become an automatic reader of speech. This remained an intellectual rather than a mechanical action. There was a real difference between speech and language. The problem of education of deaf children was a language problem. They were handicapped in their efforts still further by the fact that the majority of the children were not sent early and the intellectual age of the deaf children on admission to the school was considerably retarded. In New South Wales there was no compulsion in regard to the attendance at school of deaf and blind children. The average duration of the school life of the deaf children was five years. It was heart-breaking to struggle against these difficulties.

Mr. Earlam then presented a series of children to illustrate the various stages of the teaching of the speech and recognition of written words. It was noted that the children, after a short tuition, were able to write very neatly and well. All displayed much eagerness in interpreting the desires of Mr. Earlam correctly and were mentally alert and bright. The deaf mutes had a monotonous tone in speaking and a curious un-English accent was plainly discernible in the speech of the more advanced pupils. Some children were introduced who possessed a remnant of hearing. The same system of education was adopted in these instances, but the ability to hear enabled the children to modulate and to employ inflection. In conclusion, Mr. Earlam spoke briefly on the endeavour to exclude mentally deficient children from the school. It was not fair to the normal deaf children to have their education embarrassed by the presence of children who were incapable of using a considerable degree of intelligence. Mr. Earlam's demonstration was heartily applauded.

Dr. George E. Rennie then read a short paper on the cerebral mechanism of speech (see page 391).

Dr. J. C. Halliday read a brief paper on the causes of blindness in children (see page 392).

Dr. E. Selwyn Harrison read a paper on the care of deaf and blind children (see page 393).

Dr. Harvey Sutton, O.B.E., spoke in terms of praise of the New South Wales Institution for the Deaf and Dumb and the Blind. In discussing the oral methods of teaching the deaf, he stated that he regarded these afflicted children as forming a sort of secret society of their own. They were in the habit of developing a sign language. He asked Mr. Earlam whether he had found this habit interfered with the progress. In regard to compulsory school attendance of deaf and blind children, he pointed out that the parents were disinclined to allow their children to be exposed to the dangers of street traffic involved in going to school and in returning and altogether they were loath to part with these afflicted little ones, to allow them to go to boarding school.

In regard to lip reading he referred to ability of deaf children to read what the actors and actresses were saying in "moving pictures." Deaf and dumb people had proved their ability to make first-class detectives. In regard to blindness, he had examined the statistics in New South Wales. There were 1,000 blind persons in the State, of whom 50 were of school age. One would have expected one sixth or 166. If the figures were correct, blindness was three times as common in adults as among children between six and fourteen years. Possibly this meant a marked improvement in the number now rendered blind in childhood; otherwise he was unable to explain the anomaly. Dr. Sutton also dealt with the question of the mentally defective children. Though it was a great mistake to mix mental defectives with the ordinary deaf and blind children, some provision should be made for this special combination of defects.

Dr. W. F. Litchfield thanked Mr. Earlam and the other speakers for their interesting communications. He regarded the demonstration by Mr. Earlam as most valuable. He inquired whether the final result of oral training of deaf children was satisfactory. Were the individuals capable of communicating with others in ordinary life by means of spoken language? He directed attention to the difficulty in understanding the speech of the children. He expressed his sympathy with Mr. Earlam on account of the delay in sending the children to the institution.

Dr. H. Waddy spoke of the definition of blindness for the purpose of an educational establishment. The usual definition included those who had sufficient vision to enable them to count fingers at one metre. It had been found that the training of totally blind children or adults was easier than that of children or adults possessed of sufficient sight to permit them to grope their way about.

Dr. T. W. Lipscomb complimented Mr. Earlam on his excellent demonstration and on the admirable results obtained.

In his reply, Mr. Earlam agreed that some of the children lost a proportion of the acquired speech after leaving school, especially if the schooling had been begun late. He regarded "silent signs" as most pernicious. He dealt briefly with what he termed "hopeless" children. He agreed with Dr. Waddy in regard to the difficulty of training partially blind children. At times it was advisable to blindfold these children.

MEDICO-POLITICAL.

A meeting of the Victorian Branch was held at the Medical Society Hall, East Melbourne, on October 5, 1920, Mr. G. A. Syme, the President, in the chair.

Mr. Syme directed the attention of the members to the post-graduate course which had been initiated by the Council of the Branch. The syllabus was ready and was being distributed among practitioners. The course would extend from November 8 to November 20. The inaugural lecture would be delivered by Professor W. A. Osborne at the Melbourne University on the evening of Monday, November 8.

Mr. Syme also brought under the notice of the members the appeal for funds for the University of Melbourne. He explained that a sub-committee had been appointed to represent the medical profession and to make a direct appeal to its members. All professional men should realize the important work of the University in the community. Recent graduates would appreciate more than others the great difficulties under which the University laboured in respect to funds and to accommodation. The position had become so acute that the University could only turn students away or deal inefficiently with the large numbers entering upon the different courses.

He thought that all graduates did not realize to the full extent their indebtedness to the University. It had been calculated over a period of years that each student had paid in fees to the University only one-half of the cost of his

training; the remainder had been defrayed by the State. Mr. Syme earnestly commended the University appeal to the members of the Branch. He pointed out that subscriptions could be spread over a period of years.

Annual Meeting of Delegates of the Affiliated Local Associations with the Council of the New South Wales Branch.

The annual meeting of delegates of the affiliated local associations of members with the Council of the New South Wales Branch was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on October 1, 1920. At the beginning of the meeting Dr. Fourness Barrington, the Vice-President, occupied the chair. During the course of the morning Dr. C. Bickerton Blackburn, O.B.E., the President, conducted the meeting. Late in the afternoon he was compelled to hand the chair over to Dr. A. J. Brady. Representatives of thirteen local associations were present.

Welcome to Members.

Dr. Fourness Barrington greeted the delegates and expressed his gratification at the good attendance. He issued an invitation from Dr. Bickerton Blackburn, the President of the Branch, to the delegates to lunch at the University Club.

Friendly Society Lodge Practice.

A number of motions dealing with the financial clauses of the Common Form of Agreement were discussed. It was pointed out by the Chairman that the meeting of delegates was consultative in character and that the resolutions adopted had no binding effect on the Council. The Council noted the opinions of the local medical associations, as reflected in the resolutions of the meeting and in considering the various matters that had been discussed, allowed these opinions to influence its decisions. The delegates were unanimously of opinion that an increase in the rates for attendance on friendly society lodge patients should be arranged, if any concession in regard to the income limit clause were made. It was hoped that the matter could be adjusted by negotiation.

Further motions were presented in connexion with juvenile lodges, with a five shilling fee for visits paid at the request of the patient on public holidays, on Saturday afternoons and on Sundays, with fees for confinement and with the "open panel" system. These and other matters were discussed in detail and in some instances, resolutions conveying the wishes of the local medical associations to the Council were adopted.

Government Medical Officers.

Dr. W. E. Harris (Northern District Medical Association) moved:

> That the Government pay exchange on fees due by the Government.

He pointed out that all companies, when paying fees by cheque, always added exchange. It was a small matter, but the Government fees should not be subject to a deduction.

Dr. T. J. Henry (North-Eastern Medical Association) pointed out that the Commonwealth Government always paid full fees, while the New South Wales Government not only did not add exchange, but did not even notify the practitioner when a cheque was paid into his banking account. When various services had been rendered, it was difficult to know which service was being paid. He asked the mover to add: "and that the Government be asked to notify what the payment is for."

The suggestion was accepted and the motion, as amended, was carried.

A short discussion took place on a motion dealing with the fees for medical witnesses called to give evidence far away from his residence. It was explained that in many instances these journeys involved a long absence from home. The loss incurred was often considerable. The meeting resolved:

> That the Government be asked to increase the fees paid for medical witnesses to £3 3s. per day and travelling expenses when giving evidence in a court more than 25 miles from place of residence.

In the next place, Dr. W. E. Harris moved:

> That the mileage rate payable by the Government be at the rate of 7s. 6d. per mile during the day time and the rate at night be 10s. 6d. per mile one way.

The mover claimed that these rates should be payable for police cases and also for attendance at the coroner's court. The five shillings rate was quite insufficient under the existing conditions of travelling.

Dr. T. J. Henry (North-Eastern Medical Association) wished to apply the proposed rates to all court cases. He pointed out that if a railway journey could be made, the rate paid was 1s. 6d. per mile for the outward journey only. It was not always convenient to use the train. The payment should be made for either method of travelling.

The motion was carried.

Dr. W. E. Harris next moved:

> That the Board of Health show more expedition in reporting on pathological specimens sent from the country.

He thought that the Micro-biological Department should be enlarged or there should be established branch institutions in the country. It was stated that country practitioners laboured under great disadvantages. They had no facilities for carrying out bacteriological or pathological work themselves. If a specimen were sent to Sydney, unless the report were sent by telegram, a delay of five days often occurred. By that time the value of the report had vanished. In many cases it was useless sending specimens from distant places to Sydney.

Dr. F. O. Stokes (Eastern District Medical Association) referred to an instance when the report concerning a Widal test was received five months after the specimen had been sent.

The Honorary Secretary informed the members that the question of asking the Government to establish centres for clinical pathology in country places had been considered on many occasions by the Council. It was thought that the best course was to encourage those who were skilled in this work, to settle in the larger towns, so as to be available for all the practitioners in the district.

Reference was made to the facilities provided by the Post Office for the prompt delivery of parcels marked "Express Delivery" (see *The Medical Journal of Australia*, August 28, 1920, page 207, and October 16, 1920, page 389).

The motion was withdrawn.

Dr. Harris then moved:

> That the Government pay £1 1s. for examining lunacy cases and £1 1s. for giving evidence.

It was not infrequent that a patient was remanded by the magistrate for eight days for medical observation. All the medical practitioner received for making the necessary examinations during these eight days and for giving evidence was one guinea. He considered that two guineas was a moderate demand.

Dr. T. J. Henry (North-Eastern Medical Association) seconded the motion, which was carried.

Dr. K. S. Macarthur Brown (Central Western Medical Association) moved:

> That the fee for giving evidence at coroner's inquiries be £2 2s. and for doing a *post mortem* examination £3 3s.

He pointed out that no one desired this kind of work, which disturbed ordinary private practice and demanded the sacrifice of much time.

Dr. T. J. Henry seconded the motion, but wished to extend the application for higher fees for giving evidence to all court cases.

The Honorary Secretary pointed out that for evidence given in ordinary courts the medical witness did not receive any special treatment. All professional witnesses were paid at the same rates under the rules of the courts. The fee for giving evidence in the coroner's court was fixed by the *Coroners Act* and an amendment of the Act would be required to alter them.

The motion was carried.

Dr. K. S. Macarthur Brown (Central Western Medical Association) moved, in the second place:

> That the Government be approached to regulate obstetric nurses with a view to regulations being introduced on the line of the Central Midwives' Board (England).

Dr. Brown said that within two months four patients had developed puerperal septicæmia after having been attended by a notoriously incompetent midwife. In each case the medical practitioner had been called in when it was too late to save the patient. He considered that it was necessary for registration of midwives to be introduced without delay.

Dr. T. W. Lipscomb (Council) called the members' attention to the forthcoming meeting of the Branch (on October 29, 1920), when Dr. J. S. Purdie would give an address on maternal mortality. He thought that it would be much more effective if the matter could be dealt with at that meeting. A resolution from a meeting of the Branch would carry more weight than a resolution of the delegates.

The suggestion was accepted and the motion withdrawn.

Dr. A. J. Brady, from the Chair, thanked the members for their attendance. Many had travelled great distances to be present. He referred to the benefit to all concerned of these meetings. Formerly the country men sometimes seemed to think that the Council took little heed of their interests. He was satisfied that the delegates of the local medical associations had learned that this was not the case.

Dr. T. J. Henry moved a hearty vote of thanks to the three gentlemen who had conducted the meeting, Dr. C. Bickerton Blackburn, O.B.E., Dr. Fourness Barrington and Dr. A. J. Brady. The discussions had been very interesting and the manner in which the meeting had been managed was excellent.

Dr. W. E. Harris seconded the motion. He thought that the members of the Council had benefited by hearing the views of the delegates from the country associations, while the delegates had derived information and instruction from the debates. The motion was carried by acclamation.

Dr. R. H. Todd, responding to a vote of thanks, moved by Dr. H. O. Lethbridge, pointed out that, in devising the meeting of the delegates of the local medical associations with the Council, it had been realized that this was the most practicable substitute for representation on the Council. Unfortunately, the very arduous work of the Council and its committees made it quite impossible for any member living far from Sydney to become a member of the Council.

The following have been elected members of the Victorian Branch:—

Frederick William Jackson, Esq., M.B., Ch.B., (1920, Univ. Melb.), Wangaratta Hospital.

Russell Exon Butchart, Esq., M.B., Ch.B. (1920, Univ. Melb), St. Kilda.

John Victor Hugo De Ravin, Esq., M.B., Ch.B. (1920, Univ. Melb.), Alfred Hospital.

Edward Joseph Prendergast, Esq., M.B., Ch.B. (1920, Univ. Melb.), 41 Marine Parade, St. Kilda.

Thomas Patrick Tighe, Esq., M.B., Ch.B. (1920, Univ. Melb.), St. Vincent's Hospital, Melbourne.

Francis Percival Halkyard, Esq., M.B., Ch.B. (1914, Univ. Melb.), North Brighton.

Burnett Leslie Woodburn Clarke, Esq., M.B., Ch.B., (1920, Univ. Melb.), 29 Wattle Road, Hawthorn.

The undermentioned have been nominated for election as members of the New South Wales Branch:—

Arthur Cecil Moran, Esq., M.B., Ch.M. (Univ. Syd., 1917), "Rathmines," Jamieson Street, Granville.

George Leigh Tomlinson, Esq., M.B. (Univ. Syd., 1908), Wyong.

George Francis Louis Elliott, Esq., M.B., Ch.M. (Univ. Syd., 1918), Short Street, Carlton.

Correspondence.

THE REGISTRATION OF SIGHT-TESTING OPTICIANS.

Sir: While fully realizing that your *Journal* is essentially a medium for the expression of thought of the registered medical profession, perhaps your sense of British fair play will prompt the publication of the following comments on Dr. Kenny's Presidential Address as published in your issue of September 18. This address, in common with other similar articles on this subject which have appeared in former issues of your *Journal*, deals largely in half truths and utterly fails in its intention—that of demonstrating wherein the registration of opticians would be dangerous to the public.

Dr. Kenny states that: "Laymen have been accustomed to obtain their reading glasses from opticians," which implies that laymen do not consult opticians for other than reading glasses, which, as he must very well know, is quite untrue. Laymen of all ages and their wives and children have been in the habit of consulting opticians and did so many years before the medical profession paid any attention to sight testing.

I can quite understand Dr. Kenny's difficulties in trying to convince a lay audience of the incompetence of the optician, but surely his medically-trained audience was not satisfied with such a bald, unsupported statement as that: "Opticians are not competent to do sight testing accurately."

Opticians have been waiting for years to hear and meet the weighty arguments which oculists suggest they have in reserve—and always fail to produce.

Dr. G. Lindsay Johnson, M.A., M.D., F.R.C.S., etc. (whose name is probably known to Dr. Kenny), in an address delivered to the Institute of Ophthalmic Opticians in London, stated that: "It was impossible to say that opticians had no claim to prescribe glasses, because they had been doing so from the time of Sylvanus Amatus in the thirteenth century. On the other hand, oculists had only been engaged in this work for sixty or seventy years at the outside. It was accordingly perfectly absurd to suppose that gentlemen who had devoted their whole time to the study of optics and to examining people's eyesight, were incapable of fitting glasses. I admit they are capable of doing it." This is the opinion of a man who has for years practised in London as an oculist and who is regarded as an authority on diseases of the eyes, etc..

If opticians are such a danger to the public, why not be honest and agitate for legislation to prohibit them from practising as sight testers? Surely there should be no difficulty in finding the necessary evidence in view of the numbers of opticians now practising in Australia and the stupendous sphere of their operations?

I have heard of one case of an optician being prosecuted for incompetence, he having prescribed glasses in a case of conical cornea. The medical evidence based on a shadow test under atropine was to the effect that the optician had actually under-corrected the plus meridian of a mixed astigmatism and had thereby favoured the progress of the disease! And the laymen who constituted this court of justice believed such astounding evidence.

Dr. Kenny says that "the fact that diploma-issuing bodies forbid the use of drugs to paralyse the accommodation at once proves that their diploma holders are not competent sight testers." Does it? What about the millions of people, including many medical men, who are wearing glasses prescribed without the use of drugs? Leading oculists in America insist that the great majority of refraction cases can be satisfactorily prescribed for without the use of drugs. When oculists have learned how to test sight without depending on the use of drugs, opticians will meet with fewer cases of individuals exhibiting a sheaf of oculists' prescriptions, no two of which agree in any particular, except that the patient apparently had a right eye and a left eye. Nor will oculists make such a dismal mess in prescribing for post-cataract cases. Does any one doubt that if four or five of the leading oculists in any town were asked to prescribe glasses for any case of astigmatism, no two prescriptions would agree? Of course, they would all be accurate, because drugs had been used to assist in arriving at a scientifically correct result. If the use of drugs really did bring about such a reliable and much to be desired result, why is it that oculists so frequently find it necessary to alter their prescriptions and how account for the numbers of cases in which the optician finds it necessary to modify glasses prescribed by oculists.

It is true that there is a small percentage of cases which opticians fail to satisfy and which consequently seek the oculists' advice, but many of these cases drift about from oculist to oculist without obtaining that relief which they seek per medium of spectacles and are possibly septic cases, which should have been referred to a nasal specialist or a dentist.

Dr. Kenny states that an eye might be in such a condition that it would be highly improper to prescribe an "accurate correction." If this is urged in excuse of a great deal of the inaccurate work done by oculists, it is certainly very much to the point. But if the oculist is justified in prescribing an inaccurate correction (I prefer "guarded correction"), why condemn the optician for doing the same?

What Dr. Kenny means by "defeating opticians on the highest plane" I do not know, but should be happy to meet him on any plane he prefers before a jury of trained medical men and continue this argument "to a finish." I am quite convinced that the controversy would not be altogether one-sided, but will the optician ever be accorded such a hearing?

Dr. Kenny suggests that it would be advisable to register opticians as such and prohibit other than registered men from describing themselves as opticians, but to place no restrictions on the practise of sight testing. That is to say, that the "danger to the public" consists not in untrained men testing sight and prescribing glasses but in describing themselves as opticians!

What a brilliant effort!

Would Dr. Kenny allow anybody to practise medicine or surgery on condition that he or she did not profess to have any knowledge or training to equip them for such practice and refrained from describing themselves as doctors or surgeons?

Truly, "sight testing will never be abandoned by opticians" and if the medical profession really has the protection of the public at heart, it will insist on the registration of opticians and make it a punishable offence for any optician to test eyes unless he also makes an examination per ophthalmoscope of the retina and fundus of each eye and refers all cases which in his opinion depart from the physiological and might possibly be pathological to an oculist for medical examination.

No cause can exist without an effect.

There would then be no necessity for that "special equipment which would enable ophthalmologists to practice refraction work more thoroughly and more accurately than the most skilled optometrist or optologist." Thank you, Dr. Kenny.

Then and then only will the welfare of the public be safeguarded.

Yours, etc.,

A. KNAPP,

President of the W.A. Optical Association (Inc.).

25 Barrack Street, Perth, Western Australia,
October 1, 1920.

Sir: Mr. Knapp finds half truths in the Presidential Address delivered in the Section of Ophthalmology at the Brisbane Medical Congress. Since he quotes portions only of the sentences therein, obviously he overlooks the other half of the truth.

The resolutions unanimously agreed to in the Ophthalmological Section and afterwards also unanimously agreed to in the General Sessions of the Congress are certainly whole truths. Will you please allow them to be reprinted here for Mr. Knapp's information?

The following resolutions were carried:

1. That—

(1) It is dangerous to the welfare of the public that opticians, however highly qualified as such, should be registered as sight-testing opticians.

(2) The testing of errors of refractions (such as long sight, short sight, astigmatism, etc.) and the treatment thereof by spectacles or otherwise cannot be safely carried out by other than fully-qualified medical practitioners specially trained for this work.

The reasons for these opinions are—

(*a*) That the eye is a part of the human body and not merely an optical instrument.

(*b*) That a full knowledge of the various sciences considered necessary for graduation in medicine is as essential for the proper treatment of diseases of the eye as it is for the proper treatment of diseases of any other organ of the body.

Short of the possession of a degree from a university or a diploma from a Royal College of Physicians or Surgeons, there is no proof that any optician as such possesses the necessary knowledge.

(3) The members of this Section are prepared to assist, in every way that may be desired, in the development of the training of opticians as such, apart from their recognition by the Government as qualified sight-testers. (*The Medical Journal of Australia*, September 18, 1920, p. 300.)

Apologizing for the trespass on your space,

Yours, etc.,

A. L. KENNY.

13 Collins Street, Melbourne,
October 15, 1920.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

The undermentioned have been registered under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:—

Adcock, David, M.B., Mast. Surg., 1920, Univ. Sydney (Granville).

Allum, Albert Edward, M.B., Mast. Surg., 1920, Univ. Sydney.

Arnott, Rupert George, M.B., Mast. Surg., 1920, Univ. Sydney (Bellevue Hill).

Brown, Charles Victor Watson, M.B., Mast. Surg., 1920, Univ. Sydney.

Connelly, Thomas John Bede, M.B., Mast. Surg., 1920, Univ. Sydney (Lewisham Hospital).

Cookson, Henry George Douglas, M.B., 1920, Univ. Sydney (Renwick Hospital).

Dwyer, Sydney Keith, M.B., Mast. Surg., 1920, Univ. Sydney (Ourimbah).

Fisher, Ernest Frederick, M.B., 1920, Univ. Sydney (202 Palmer Street).

Fowler, Robert, M.B., Bac. Surg., 1909; M.D., 1912, Univ. Melbourne; F.R.C.S., Eng., 1920 (Campbell Street, North Sydney).

Gentile, Salvatore Umberto, M.B., 1920, Univ. Sydney (North Sydney).

Gwynne, Francis John, M.B., Mast. Surg., 1920, Univ. Sydney (Hamilton).

Hearne, Kenneth Goodall, M.B., Bac. Surg., 1911; M.D., 1919, Univ. Edin. (Buena Vista Avenue, Mosman).

Holland, Llondha Llenoi, M.B., 1920, Univ. Sydney (North Sydney).

Illingworth, Harold Thorburn, M.B., Mast. Surg., 1920, Univ. Sydney (Darlinghurst).

Levick, Claude Blaxland, M.B., Mast. Surg., 1920, Univ. Sydney (Hunter's Hill).

Loudon, Derby Briton, M.B., Mast. Surg., 1920, Univ. Sydney (Mosman).

North, Alan Lindsay, M.B., Mast. Surg., 1920, Univ. Sydney (Beecroft).

Pain, Francis, L.R.C.P., Lond., 1886; M.R.C.S., Eng., 1886; L.S.A., Lond., 1886 (Rosslyn Flats, Coogee).

Plotz, Oscar Arnold, now Arnold, Oscar, M.B., Bac. Surg., 1916, Univ. Adelaide (147 George Street West).

Scott, Leslie John, M.B., Mast. Surg., 1920, Univ. Sydney (289 Nelson Street, Annandale).

Scrivener, Harry Reynolds, M.B., Mast. Surg., 1920, Univ. Sydney (Killara).

Sinclair, James, M.B., Mast. Surg., 1920, Univ. Sydney (Wentworth Falls).

Smith, Ernest Bruce, M.B., Mast. Surg., 1920, Univ. Sydney (Darling Point).

Spence, Kenneth Kinross, M.B., Mast. Surg., 1920, Univ. Sydney (Royal Prince Alfred Hospital).

Taylor, Leonard Darnley, M.B., Mast. Surg., 1920, Univ. Sydney (98 Johnstone Street, Annandale).

Trenerry, Edwin, M.B., Mast. Surg., 1920, Univ. Sydney (Royal South Sydney Hospital).

Yuille, Max, M.B., Bac. Surg., 1914, Univ. Melbourne (Dubbo).

Additional registrations:—

Buchanan, August Lyle, F.R.C.S., England, 1920.

Vickery, Kenneth Firth, Dip. in Public Health, 1920, Univ. Sydney.

Wesley, Charles Herbert, Mast. Surg., 1920, Univ. Sydney.

Books Received.

CONRAD MARTENS: THE MAN AND HIS ART, by Lionel Lindsay; 1920. Sydney: Angus & Robertson, Limited; Demy 4to., pp. 33, with 32 coloured plates, 12 sepia drawings, 16 pencil drawings and three illustrations in the text. Price, Two guineas.

HYGIENE, DENTAL AND GENERAL, by Clair Elsmere Turner, Assistant Professor of Biology and Public Health, Massachusetts Institute of Technology; 1920. St. Louis: C. V. Mosby Company; Demy 8vo., pp. 400, illustrated. Price, $4.00.

THE DEVELOPMENT OF THE HUMAN BODY: A Manual of Human Embryology, by J. Playfair McMurrich, A.M., Ph.D., LL.D., Professor of Anatomy, University of Toronto. Sixth Edition, Revised and Enlarged, with 299 illustrations, many in colours; 1920. Philadelphia: P. Blakiston's Son & Company. Post 8vo., pp. 501.

Medical Appointments.

Dr. T. Wilson (B.M.A.) has been appointed Quarantine Officer at Port Hedland, Western Australia.

Dr. Colin Anderson, M.C. (B.M.A.), has been appointed Government Medical Officer at Gunnedah, New South Wales.

Dr. G. A. Lawrance (B.M.A.) has been appointed Government Medical Officer at Merriwa, New South Wales.

The following gentlemen have been appointed first, second and third resident medical officers respectively at the Coast Hospital, Little Bay, New South Wales:—

Dr. T. M. Furber, Dr. A. L. Stafford and Dr. J. A. James.

Dr. H. C. Wall (B.M.A.) has been appointed School Medical Officer on probation for six months in the Medical Branch of the Department of Public Instruction of New South Wales.

Dr. R. H. Morgan (B.M.A.) has been appointed District Medical Officer and Public Vaccinator at Yarloop, Western Australia.

Dr. H. P. Elliott (B.M.A.) has been appointed Government Medical Officer and Visiting Surgeon to His Majesty's Police Gaol at Cooktown, Queensland.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxi.

Health Department of Victoria: Medical Officer.

Royal Prince Alfred Hospital, Sydney: (1) Honorary Director of the X-Ray Department, or Honorary Assistant Radiographer. (2) Honorary Assistant Physician. (3) Three Honorary Assistant Medical Officers for the Venereal Clinic.

The Medical Journal of Australia: Half-time Assistant to Editor.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Institutes or Medical Dispensaries. Manchester Unity Independent Order of Oddfellows. Ancient Order of Foresters. Hibernian Australian Catholic Benefit Society. Grand United Order of Free Gardeners. Sons of Temperance. Order of St. Andrew. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

Oct. 26.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Oct. 27.—Vict. Branch, B.M.A., Council.
Oct. 28.—Q. Branch, B.M.A., Council.
Oct. 28.—S. Aust. Branch, B.M.A..
Oct. 29.—N.S.W. Branch, B.M.A..
Nov. 1 to 10.—Vic. Branch, B.M.A.; nominations of candidates received for election to Council.
Nov. 5.—Q. Branch, B.M.A..
Nov. 9.—Tas. Branch, B.M.A..
Nov. 9.—N.S.W. Branch, B.M.A., Ethics Committee.
Nov. 10.—Vic. Branch, B.M.A..
Nov. 11.—Vic. Branch, B.M.A., Council.
Nov. 11.—Q. Branch, B.M.A., Council.
Nov. 12.—N.S.W. Branch, B.M.A., Clinical.
Nov. 12.—S. Aust. Branch, B.M.A., Council.
Nov. 16.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Nov. 16.—Illawarra Suburbs Med. Assoc. (Annual).

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney. (Telephone: B. 4635.)